ABSTRACT OF THE DISCLOSURE

An interface circuit permits communication between devices of dissimilar logic families without requiring level translation, by interposing a switching transistor between the devices. In one embodiment, a switching transistor is placed between a serial port of a RS232 device and a parallel port of a TTL microcontroller. Selective activation of the switching transistor permits a high voltage signal to be transmitted from the power supply rail of the TTL microcontroller to the RXD pin of the RS232 device, where the signal is interpreted as a logical low. This step takes advantage of the fact that the RS232 standard interprets any voltage received at the RXD pin greater than a receiver threshold value to be a logical low. Selective deactivation of the switching transistor isolates the RS232 port from the non-RS232 device, permitting negative voltage signal output by the TXD pin of the idling RS232 port to be conveyed back to the RS232 port at the RXD pin. This negative voltage signal is interpreted by the RS232 port as a logical high signal. This step takes advantage of the fact that the RS232 standard calls for the TXD pin to emit a default -12V signal when the RS232 port is otherwise idle.